

Abstract

The present invention provides an enzyme with lytic activity against cariogenic bacteria and a means for treating and preventing tooth decay using the enzyme. The enzyme provided by the present invention is a lytic enzyme produced by *Streptococcus mutans* and has a substrate specificity for lysing selectively *Streptococcus mutans* and *Streptococcus sobrinus*. Therefore, application of the enzyme enables to remove selectively cariogenic bacteria or to decrease the number of cariogenic bacteria inside oral cavity, and may exert preventive effect against tooth caries.